SCREENING AIR MODELLING ANALYSIS IN SUPPORT OF PUNA GEOTHERMAL VENTURE APPLICATION FOR AUTHORITY TO CONSTRUCT A STEAM BOILER

December 22, 1991

Puna Geothermal Venture is proposing to install and operate a 60,000 pound per hour steam boiler at the site of the Puna Geothermal Venture geothermal power plant for the purpose of testing various components of the power plant steam cycle. The steam boiler will operate over a limited period of time for a short period on any given day. This analysis is designed to determine if the proposed facility will be in compliance with the State of Hawaii Ambient Air Quality Standards.

Principal emissions from the steam boiler consist of nitrogen oxides, sulfur dioxide, carbon monoxide and particulates. Emissions estimates for these pollutants are provided below in Table 1:

TABLE 1

POLLUTANT	ESTIMATED EMISSION RATE[1] (pounds/hour)
Nitrogen Oxides	10.76
Sulfur Dioxide	9.60
Carbon Monoxide	9.99
Particulates	1.92

No other significant emission sources of these pollutants are anticipated in the vicinity of the PGV Project during the proposed period of use of the steam boiler.

Emission characteristics of the boiler stack, as provided by the manufacturer and used in the modelling, are presented below in Table 2:

[1]Estimated emissions under maximum operating conditions (76,350,000 BTU/hr) as specified by the manufacturer when using 0.5 percent sulfur No. 2 fuel oil.

TABLE 2	
PARAMETER	VALUE
Stack Base Height	670 feet
Stack Height	6 meters
Stack Flow Rate	15.36 cubic meters per second
Stack Diameter	1.47 square meters[2]
Stack Exit Temperature	315 °C

Because terrain in the region of the PGV Project area varies from well below stack base height to well above the stack elevation, screening analyses were conducted using both the Industrial Source Complex Short Term (ISCST) and the Valley Simulation Option of the COMPLEX-1 Environmental Protection Agency (EPA) Guideline models.

The ISCST model was used in a screening configuration, assuming flat terrain from the property boundary (minimum distance from the location of the steam boiler being 450 meters) out to a distance of 50 kilometers; this is a conservative assumption for all elevations below the stack elevation. The standard 49 PTPLU wind speed/stability class combinations were used in the analysis, with the addition of six (6) other combinations (1.0 and 1.5 meters per second wind speeds in the "C", "E" and "F" stability classes) at the request of the Hawaii Department of Health, Clean Air Branch (HDOH, CAB). A total of four (4) computer runs were made: flat terrain; flat terrain with downwash from the power plant[3], flat terrain with 10 meter flagpole receptors[4]; and flat terrain with downwash from the power plant and 10 meter flagpole receptors. The modelled one-hour maxima for each computer run are presented below in Table 3, and the computer output for each run are attached:

---

[2]Stack diameter is calculated from the area of the rectangular (1.0 meter by 1.7 meter) stack.

[3]The power plant facility was considered to be the area bounded by the air coolers, or 282 feet by 282 feet by 28 feet high. Because of the skeletal nature of the power plant air cooler support structure and the dispersed layout of the power generating modules, the assumption that this is a "building" is very conservative.

[4]This assumption is used for consistency with air impact modelling done for the PGV Project Emergency Response Plan and is not supported by any regulatory directives.

TABLE 3		
MODEL RUN	MAXIMA ($\mu g/m^3$)	LOCATION (kilometers)
FLAT TERRAIN (RUN DIS42001.WPR)	20.73	0.450
FLAT TERRAIN WITH DOWNWASH (RUN DIS42002.WPR)	22.49	0.450
FLAT TERRAIN WITH 10 METER FLAGPOLE RECEPTORS (RUN DIS42003.WPR)	22.34	0.450
FLAT TERRAIN WITH DOWNWASH AND 10 METER FLAGPOLE RECEPTORS (RUN DIS42004.WPR)	23.19	0.450

By ratioing the emission rate of the sulfur dioxide modelled above with the emission rates of the other pollutants, estimates of the maximum ambient concentrations of the other pollutants can be made, as presented in Table 4, below:

TABLE 4			
POLLUTANT	HAWAII AAQS ($\mu g/m^3$)	MAXIMA ($\mu g/m^3$)	LOCATION (kilometers)
NITROGEN OXIDES[5]	70 (annual)	25.99	0.450
SULFUR DIOXIDE	1300 (3-hour) 365 (24-hour) 80 (annual)	23.19	0.450
CARBON MONOXIDE	10,000 (1-hour) 5,000 (8-hour)	24.13	0.450
PARTICULATES	150 (24-hour)	4.64	0.450

[5]All estimates assume modelled output of computer run of flat terrain with downwash and 10 meter flagpole receptors (run DIS42004.WPR).

As can be seen from Table 4, the predicted one-hour maxima are significantly below the annual ambient air quality standards, and are an order of magnitude or more below any short-term standards.

To evaluate the effects of elevated terrain on the predicted maxima, the Valley Simulation Option of the COMPLEX-1 model was run for sulfur dioxide using the same emission parameters as the ISCST modelling. Receptors were placed along a single line leading away from the steam boiler stack at distances and elevations calculated from the receptors used in the air impact analyses conducted by Aerometric Monitoring, Inc. (AMI) for PGV's Application for Authority to Construct the PGV Project Power Plant (ATC No. A-833-794). The distance from each discrete receptor used in the AMI analysis with an elevation above 690 feet (the stack elevation of the steam boiler) to the steam boiler stack was calculated and its elevation used in the current analysis. In addition, the receptor with the highest elevation above 690 feet in each ring of the polar grid used in the AMI analysis was similarly used. The calculated distances to these receptors and their elevations are presented in the COMPLEX-1 modelling results, attached. The modelled 24-hour maxima for sulfur dioxide, and the ratioed maxima for the other pollutants, are presented in Table 5:

TABLE 5

POLLUTANT	HAWAII AAQS ($\mu g/m^3$)	MAXIMA ($\mu g/m^3$)	LOCATION (kilometers)
NITROGEN OXIDES[6]	70 (annual)	2.81	3.67
SULFUR DIOXIDE	1300 (3-hour) 365 (24-hour) 80 (annual)	2.51	3.67
CARBON MONOXIDE	10,000 (1-hour) 5,000 (8-hour)	2.61	3.67
PARTICULATES	150 (24-hour)	0.50	3.67

As was the case with the ISCST modelling, as can be seen from Table 5, the predicted 24-hour maxima are significantly below the applicable ambient air quality standards. Accordingly, no exceedences are predicted.

[6] All estimates assume modelled output of COMPLEX-1 computer run DCP42002.WPR.

1 ISCST - (DATED 90346)

IBM-PC VERSION (2.34)
(C) COPYRIGHT 1990, TRINITY CONSULTANTS, INC.
SERIAL NUMBER 6688 SOLD TO ENVIRONMENTAL MANAGMENT ASSOCIATES
RUN BEGAN ON 12-20-91 AT 14:21:16

1 *** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)	ISW(1) = 1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)	ISW(2) = 3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)	ISW(3) = 1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)	ISW(4) = 0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)	ISW(5) = 0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)	ISW(6) = 2
COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)	
WITH THE FOLLOWING TIME PERIODS:	
HOURLY (YES=1,NO=0)	ISW(7) = 1
2-HOUR (YES=1,NO=0)	ISW(8) = 0
3-HOUR (YES=1,NO=0)	ISW(9) = 0
4-HOUR (YES=1,NO=0)	ISW(10) = 0
6-HOUR (YES=1,NO=0)	ISW(11) = 0
8-HOUR (YES=1,NO=0)	ISW(12) = 0
12-HOUR (YES=1,NO=0)	ISW(13) = 0
24-HOUR (YES=1,NO=0)	ISW(14) = 0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)	ISW(15) = 0
PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE	
SPECIFIED BY ISW(7) THROUGH ISW(14):	
DAILY TABLES (YES=1,NO=0)	ISW(16) = 0
HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)	ISW(17) = 1
MAXIMUM 50 TABLES (YES=1,NO=0)	ISW(18) = 0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)	ISW(19) = 2
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)	ISW(20) = 0
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(21) = 1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(22) = 1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)	ISW(23) = 0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)	ISW(24) = 1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)	ISW(25) = 1
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)	ISW(26) = 1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)	ISW(27) = 2
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)	ISW(28) = 2
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)	ISW(29) = 1
DEBUG OPTION CHOSEN (YES=1,NO=2)	ISW(30) = 2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)	ISW(31) = 0
NUMBER OF INPUT SOURCES	NSOURC = 1
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP = 1
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD = 0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS = 1
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 50
NUMBER OF DISCRETE RECEPTORS	NXWYPT = 50
NUMBER OF HOURS PER DAY IN METEOROLOGICAL DATA	NHOURS = 1
NUMBER OF DAYS OF METEOROLOGICAL DATA	NDAYS = 55
SOURCE EMISSION RATE UNITS CONVERSION FACTOR	TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED	ZR = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 7
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 1138 WORDS

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

*** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

1,

*** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

1,

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

301430.0,

*** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

2155250.0, 2156250.0, 2157250.0, 2158250.0, 2159250.0, 2160250.0, 2161250.0, 2162250.0, 2163250.0, 2164250.0,
2165250.0, 2166250.0, 2167250.0, 2168250.0, 2169250.0, 2170250.0, 2171250.0, 2172250.0, 2173250.0, 2174250.0,
2175250.0, 2176250.0, 2177250.0, 2178250.0, 2179250.0, 2180250.0, 2181250.0, 2182250.0, 2183250.0, 2184250.0,
2185250.0, 2186250.0, 2187250.0, 2188250.0, 2189250.0, 2190250.0, 2191250.0, 2192250.0, 2193250.0, 2194250.0,
2195250.0, 2196250.0, 2197250.0, 2198250.0, 2199250.0, 2200250.0, 2201250.0, 2202250.0, 2203250.0, 2204250.0,

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

*** X,Y COORDINATES OF DISCRETE RECEPTORS ***
(METERS)

(301430.0,2155700.0), (301430.0,2155750.0), (301430.0,2155800.0), (301430.0,2155850.0), (301430.0,2155900.0),
(301430.0,2155950.0), (301430.0,2156050.0), (301430.0,2156100.0), (301430.0,2156150.0), (301430.0,2156200.0),
(301430.0,2156250.0), (301430.0,2156300.0), (301430.0,2156350.0), (301430.0,2156400.0), (301430.0,2156450.0),
(301430.0,2156500.0), (301430.0,2156550.0), (301430.0,2156600.0), (301430.0,2156650.0), (301430.0,2156700.0),
(301430.0,2156750.0), (301430.0,2156800.0), (301430.0,2156850.0), (301430.0,2156900.0), (301430.0,2156950.0),
(301430.0,2157100.0), (301430.0,2157200.0), (301430.0,2157300.0), (301430.0,2157400.0), (301430.0,2157500.0),
(301430.0,2157600.0), (301430.0,2157700.0), (301430.0,2157800.0), (301430.0,2157900.0), (301430.0,2158100.0),
(301430.0,2158200.0), (301430.0,2158300.0), (301430.0,2158400.0), (301430.0,2158500.0), (301430.0,2158600.0),
(301430.0,2158700.0), (301430.0,2158800.0), (301430.0,2158900.0), (301430.0,2159100.0), (301430.0,2159200.0),
(301430.0,2159300.0), (301430.0,2159400.0), (301430.0,2159500.0), (301430.0,2159600.0), (301430.0,2159700.0),
(

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	0	0	0	0.12096E+01	301430.0	2155250.0	204.2	6.00	588.00	9.03	1.47	0.00	0.00	0.00

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 001 METERS OR THREE BUILDING HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
1	301430.0	2155250.0	0.00

1 MET. DATA DAY 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 1 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	0.50	300.0	293.0	0.0000	1	0.0700	0.000000E+00

1 MET. DATA DAY 2

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 2 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	0.80	300.0	293.0	0.0000	1	0.0700	0.000000E+00

1 MET. DATA DAY 3

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 3 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.00	300.0	293.0	0.0000	1	0.0700	0.000000E+00

1 MET. DATA DAY 4

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 4 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.50	300.0	293.0	0.0000	1	0.0700	0.000000E+00

MET. DATA
DAY 5

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 5 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.00	300.0	293.0	0.0000	1	0.0700	0.000000E+00

1

MET. DATA
DAY 6

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 6 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.50	300.0	293.0	0.0000	1	0.0700	0.000000E+00

1

MET. DATA
DAY 7

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 7 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	3.00	300.0	293.0	0.0000	1	0.0700	0.000000E+00

1

MET. DATA
DAY 8

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 8 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	0.50	300.0	293.0	0.0000	2	0.0700	0.000000E+00

1

MET. DATA
DAY 9

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 9 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	0.80	300.0	293.0	0.0000	2	0.0700	0.000000E+00

1 MET. DATA DAY 10

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 10 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.00	300.0	293.0	0.0000	2	0.0700	0.000000E+00

1 MET. DATA DAY 11

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 11 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.50	300.0	293.0	0.0000	2	0.0700	0.000000E+00

1 MET. DATA DAY 12

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 12 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.00	300.0	293.0	0.0000	2	0.0700	0.000000E+00

1 MET. DATA DAY 13

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 13 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.50	300.0	293.0	0.0000	2	0.0700	0.000000E+00

1 MET. DATA DAY 14

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 14 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	3.00	300.0	293.0	0.0000	2	0.0700	0.000000E+00

1

MET. DATA
DAY 15

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 15 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	4.00	300.0	293.0	0.0000	2	0.0700	0.000000E+00

1

MET. DATA
DAY 16

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 16 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	5.00	300.0	293.0	0.0000	2	0.0700	0.000000E+00

1

MET. DATA
DAY 17

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 17 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.00	300.0	293.0	0.0000	3	0.1000	0.000000E+00

1

MET. DATA
DAY 18

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 18 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.50	300.0	293.0	0.0000	3	0.1000	0.000000E+00

1

MET. DATA
DAY 19

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 19 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	3.00	300.0	293.0	0.0000	3	0.1000	0.000000E+00

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 20 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	4.00	300.0	293.0	0.0000	3	0.1000	0.000000E+00

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 21 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	5.00	300.0	293.0	0.0000	3	0.1000	0.000000E+00

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 22 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	7.00	300.0	293.0	0.0000	3	0.1000	0.000000E+00

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 23 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	10.00	300.0	293.0	0.0000	3	0.1000	0.000000E+00

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 24 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	12.00	300.0	293.0	0.0000	3	0.1000	0.000000E+00

1 MET. DATA DAY 25

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 25 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	15.00	300.0	293.0	0.0000	3	0.1000	0.000000E+00

1 MET. DATA DAY 26

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 26 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	0.50	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1 MET. DATA DAY 27

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 27 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	0.80	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1 MET. DATA DAY 28

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 28 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.00	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1 MET. DATA DAY 29

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 29 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.50	300.0	293.0	0.0000	4	0.1500	0.000000E+00

MET. DATA
DAY 30

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 30 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.00	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1

MET. DATA
DAY 31

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 31 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.50	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1

MET. DATA
DAY 32

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 32 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	3.00	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1

MET. DATA
DAY 33

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 33 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	4.00	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1

MET. DATA
DAY 34

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 34 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	5.00	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1 MET. DATA DAY 35

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 35 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	7.00	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1 MET. DATA DAY 36

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 36 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	10.00	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1 MET. DATA DAY 37

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 37 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	12.00	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1 MET. DATA DAY 38

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 38 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	15.00	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1 MET. DATA DAY 39

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 39 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	20.00	300.0	293.0	0.0000	4	0.1500	0.000000E+00

1 MET. DATA DAY 40

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 40 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.00	300.0	293.0	0.0200	5	0.3500	0.000000E+00

1 MET. DATA DAY 41

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 41 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.50	300.0	293.0	0.0200	5	0.3500	0.000000E+00

1 MET. DATA DAY 42

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 42 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	3.00	300.0	293.0	0.0200	5	0.3500	0.000000E+00

1 MET. DATA DAY 43

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 43 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	4.00	300.0	293.0	0.0200	5	0.3500	0.000000E+00

1 MET. DATA DAY 44

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 44 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	5.00	300.0	293.0	0.0200	5	0.3500	0.000000E+00

MET. DATA
DAY 45

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 45 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.00	300.0	293.0	0.0350	6	0.5500	0.000000E+00

1

MET. DATA
DAY 46

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 46 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	2.50	300.0	293.0	0.0350	6	0.5500	0.000000E+00

1

MET. DATA
DAY 47

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 47 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	3.00	300.0	293.0	0.0350	6	0.5500	0.000000E+00

1

MET. DATA
DAY 48

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 48 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	4.00	300.0	293.0	0.0350	6	0.5500	0.000000E+00

1

MET. DATA
DAY 49

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 49 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	5.00	300.0	293.0	0.0350	6	0.5500	0.000000E+00

MET. DATA
DAY 50

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 50 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.00	300.0	293.0	0.0000	3	0.1000	0.000000E+00

1

MET. DATA
DAY 51

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 51 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.50	300.0	293.0	0.0000	3	0.1000	0.000000E+00

1

MET. DATA
DAY 52

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 52 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.00	300.0	293.0	0.0200	5	0.3500	0.000000E+00

1

MET. DATA
DAY 53

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 53 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.50	300.0	293.0	0.0200	5	0.3500	0.000000E+00

1

MET. DATA
DAY 54

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 54 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.00	300.0	293.0	0.0350	6	0.5500	0.000000E+00

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* METEOROLOGICAL DATA FOR DAY 55 *

HOUR	FLOW VECTOR (DEGREES)	WIND SPEED (MPS)	MIXING HEIGHT (METERS)	TEMP. (DEG. K)	POT. TEMP. GRADIENT (DEG. K PER METER)	STABILITY CATEGORY	WIND PROFILE EXPONENT	DECAY COEFFICIENT (PER SEC)
1	0.0	1.50	300.0	293.0	0.0350	6	0.5500	0.000000E+00

HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 12.01482 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2204250.0	2.74738 (54, 1)
2203250.0	2.79843 (54, 1)
2202250.0	2.85139 (54, 1)
2201250.0	2.90639 (54, 1)
2200250.0	2.96354 (54, 1)
2199250.0	3.02297 (54, 1)
2198250.0	3.08483 (54, 1)
2197250.0	3.14927 (54, 1)
2196250.0	3.21644 (54, 1)
2195250.0	3.28654 (54, 1)
2194250.0	3.35975 (54, 1)
2193250.0	3.43630 (54, 1)
2192250.0	3.51641 (54, 1)
2191250.0	3.60034 (54, 1)
2190250.0	3.68838 (54, 1)
2189250.0	3.78083 (54, 1)
2188250.0	3.87805 (54, 1)
2187250.0	3.98040 (54, 1)
2186250.0	4.08832 (54, 1)
2185250.0	4.20228 (54, 1)
2184250.0	4.32155 (54, 1)
2183250.0	4.44750 (54, 1)
2182250.0	4.58072 (54, 1)
2181250.0	4.72185 (54, 1)
2180250.0	4.87161 (54, 1)
2179250.0	5.03080 (54, 1)
2178250.0	5.20032 (54, 1)
2177250.0	5.38120 (54, 1)
2176250.0	5.57460 (54, 1)
2175250.0	5.78185 (54, 1)
2174250.0	6.00444 (54, 1)
2173250.0	6.24412 (54, 1)
2172250.0	6.50283 (54, 1)
2171250.0	6.78301 (54, 1)
2170250.0	7.08717 (54, 1)
2169250.0	7.38635 (54, 1)
2168250.0	7.70361 (54, 1)
2167250.0	8.03902 (54, 1)

HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 12.01482 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2166250.0	8.39154 (54, 1)
2165250.0	8.75854 (54, 1)
2164250.0	9.13465 (54, 1)
2163250.0	9.50985 (54, 1)
2162250.0	9.86615 (54, 1)
2161250.0	10.03374 (54, 1)
2160250.0	10.02446 (54, 1)
2159250.0	9.76768 (52, 1)
2158250.0	9.59728 (52, 1)
2157250.0	8.27873 (53, 1)
2156250.0	12.01482 (35, 1)
2155250.0	0.00000 (0, 0)

1

HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY,HOUR)	- X -	- Y -	CON.	(DAY,HOUR)
301430.0	2155700.0	20.72659	(38, 1)	301430.0	2155750.0	19.48809	(38, 1)
301430.0	2155800.0	18.25963	(37, 1)	301430.0	2155850.0	17.37324	(37, 1)
301430.0	2155900.0	16.42545	(37, 1)	301430.0	2155950.0	15.62020	(36, 1)
301430.0	2156050.0	14.20353	(36, 1)	301430.0	2156100.0	13.49495	(36, 1)
301430.0	2156150.0	12.80646	(36, 1)	301430.0	2156200.0	12.37482	(35, 1)
301430.0	2156250.0	12.01482	(35, 1)	301430.0	2156300.0	11.61379	(35, 1)
301430.0	2156350.0	11.22091	(35, 1)	301430.0	2156400.0	10.83852	(35, 1)
301430.0	2156450.0	10.46820	(35, 1)	301430.0	2156500.0	10.11091	(35, 1)
301430.0	2156550.0	9.76716	(35, 1)	301430.0	2156600.0	9.43714	(35, 1)
301430.0	2156650.0	9.12081	(35, 1)	301430.0	2156700.0	8.81795	(35, 1)
301430.0	2156750.0	8.60565	(34, 1)	301430.0	2156800.0	8.42431	(34, 1)
301430.0	2156850.0	8.24434	(34, 1)	301430.0	2156900.0	8.06641	(34, 1)
301430.0	2156950.0	7.89103	(34, 1)	301430.0	2157100.0	7.90523	(53, 1)
301430.0	2157200.0	8.16204	(53, 1)	301430.0	2157300.0	8.36068	(53, 1)
301430.0	2157400.0	8.50682	(53, 1)	301430.0	2157500.0	8.67356	(52, 1)
301430.0	2157600.0	8.85304	(52, 1)	301430.0	2157700.0	9.01328	(52, 1)
301430.0	2157800.0	9.15533	(52, 1)	301430.0	2157900.0	9.28022	(52, 1)
301430.0	2158100.0	9.48275	(52, 1)	301430.0	2158200.0	9.56242	(52, 1)
301430.0	2158300.0	9.62898	(52, 1)	301430.0	2158400.0	9.68339	(52, 1)
301430.0	2158500.0	9.72651	(52, 1)	301430.0	2158600.0	9.75918	(52, 1)
301430.0	2158700.0	9.78222	(52, 1)	301430.0	2158800.0	9.79635	(52, 1)
301430.0	2158900.0	9.80228	(52, 1)	301430.0	2159100.0	9.79217	(52, 1)
301430.0	2159200.0	9.77732	(52, 1)	301430.0	2159300.0	9.74600	(52, 1)
301430.0	2159400.0	9.78522	(54, 1)	301430.0	2159500.0	9.82807	(54, 1)
301430.0	2159600.0	9.86657	(54, 1)	301430.0	2159700.0	9.90092	(54, 1)

2ND HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 11.51814 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2204250.0	2.02648 (55, 1)
2203250.0	2.06624 (55, 1)
2202250.0	2.10756 (55, 1)
2201250.0	2.15054 (55, 1)
2200250.0	2.19529 (55, 1)
2199250.0	2.24190 (55, 1)
2198250.0	2.29051 (55, 1)
2197250.0	2.34123 (55, 1)
2196250.0	2.39422 (55, 1)
2195250.0	2.44963 (55, 1)
2194250.0	2.50762 (55, 1)
2193250.0	2.56839 (55, 1)
2192250.0	2.63213 (55, 1)
2191250.0	2.69908 (55, 1)
2190250.0	2.76947 (55, 1)
2189250.0	2.84359 (55, 1)
2188250.0	2.92173 (55, 1)
2187250.0	3.00424 (55, 1)
2186250.0	3.09149 (55, 1)
2185250.0	3.18390 (55, 1)
2184250.0	3.28228 (55, 1)
2183250.0	3.38666 (55, 1)
2182250.0	3.49758 (55, 1)
2181250.0	3.61568 (55, 1)
2180250.0	3.74166 (55, 1)
2179250.0	3.87633 (55, 1)
2178250.0	4.02061 (55, 1)
2177250.0	4.17555 (55, 1)
2176250.0	4.34235 (55, 1)
2175250.0	4.52243 (55, 1)
2174250.0	4.71741 (55, 1)
2173250.0	4.92917 (55, 1)
2172250.0	5.15996 (55, 1)
2171250.0	5.41241 (55, 1)
2170250.0	5.68967 (55, 1)
2169250.0	5.98033 (55, 1)
2168250.0	6.29609 (55, 1)
2167250.0	6.63937 (55, 1)

2ND HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 11.51814 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2166250.0	7.01241 (55, 1)
2165250.0	7.41693 (55, 1)
2164250.0	7.85341 (55, 1)
2163250.0	8.31967 (55, 1)
2162250.0	8.80813 (55, 1)
2161250.0	9.20024 (55, 1)
2160250.0	9.48805 (55, 1)
2159250.0	9.71227 (54, 1)
2158250.0	9.14036 (55, 1)
2157250.0	8.16402 (40, 1)
2156250.0	11.51814 (36, 1)
2155250.0	0.00000 (0, 0)

1

2ND HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY,HOUR)	- X -	- Y -	CON.	(DAY,HOUR)
301430.0	2155700.0	20.05565	(39, 1)	301430.0	2155750.0	18.99768	(37, 1)
301430.0	2155800.0	18.16281	(38, 1)	301430.0	2155850.0	16.84953	(38, 1)
301430.0	2155900.0	16.27541	(36, 1)	301430.0	2155950.0	15.47015	(37, 1)
301430.0	2156050.0	13.65122	(37, 1)	301430.0	2156100.0	12.99921	(35, 1)
301430.0	2156150.0	12.70778	(35, 1)	301430.0	2156200.0	12.14605	(36, 1)
301430.0	2156250.0	11.51814	(36, 1)	301430.0	2156300.0	10.94654	(36, 1)
301430.0	2156350.0	10.41434	(36, 1)	301430.0	2156400.0	9.91874	(36, 1)
301430.0	2156450.0	9.65991	(34, 1)	301430.0	2156500.0	9.49619	(34, 1)
301430.0	2156550.0	9.32500	(34, 1)	301430.0	2156600.0	9.14862	(34, 1)
301430.0	2156650.0	8.96895	(34, 1)	301430.0	2156700.0	8.78754	(34, 1)
301430.0	2156750.0	8.52824	(35, 1)	301430.0	2156800.0	8.25127	(35, 1)
301430.0	2156850.0	7.98656	(35, 1)	301430.0	2156900.0	7.73362	(35, 1)
301430.0	2156950.0	7.54305	(40, 1)	301430.0	2157100.0	7.89278	(40, 1)
301430.0	2157200.0	8.08180	(40, 1)	301430.0	2157300.0	8.25286	(52, 1)
301430.0	2157400.0	8.47381	(52, 1)	301430.0	2157500.0	8.62990	(53, 1)
301430.0	2157600.0	8.73178	(53, 1)	301430.0	2157700.0	8.81421	(53, 1)
301430.0	2157800.0	8.87890	(53, 1)	301430.0	2157900.0	8.92742	(53, 1)
301430.0	2158100.0	8.98184	(53, 1)	301430.0	2158200.0	9.07151	(55, 1)
301430.0	2158300.0	9.17731	(55, 1)	301430.0	2158400.0	9.24495	(55, 1)
301430.0	2158500.0	9.30468	(55, 1)	301430.0	2158600.0	9.35701	(55, 1)
301430.0	2158700.0	9.40240	(55, 1)	301430.0	2158800.0	9.44128	(55, 1)
301430.0	2158900.0	9.49739	(54, 1)	301430.0	2159100.0	9.62821	(54, 1)
301430.0	2159200.0	9.68553	(54, 1)	301430.0	2159300.0	9.73778	(54, 1)
301430.0	2159400.0	9.69935	(52, 1)	301430.0	2159500.0	9.64972	(52, 1)
301430.0	2159600.0	9.59741	(52, 1)	301430.0	2159700.0	9.56021	(55, 1)

RUN ENDED ON 12-20-91 AT 14:21:30

ISCST - (DATED 90346)

IBM-PC VERSION (2.04)
(C) COPYRIGHT 1990, TRINITY CONSULTANTS, INC.
SERIAL NUMBER 6688 SOLD TO ENVIRONMENTAL MANAGMENT ASSOCIATES
RUN BEGAN ON 12-20-91 AT 14:21:34

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)	ISW(1) = 1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)	ISW(2) = 3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)	ISW(3) = 1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)	ISW(4) = 0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)	ISW(5) = 0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)	ISW(6) = 1
COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)	
WITH THE FOLLOWING TIME PERIODS:	
HOURLY (YES=1,NO=0)	ISW(7) = 1
2-HOUR (YES=1,NO=0)	ISW(8) = 0
3-HOUR (YES=1,NO=0)	ISW(9) = 0
4-HOUR (YES=1,NO=0)	ISW(10) = 0
6-HOUR (YES=1,NO=0)	ISW(11) = 0
8-HOUR (YES=1,NO=0)	ISW(12) = 0
12-HOUR (YES=1,NO=0)	ISW(13) = 0
24-HOUR (YES=1,NO=0)	ISW(14) = 0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)	ISW(15) = 0
PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE	
SPECIFIED BY ISW(7) THROUGH ISW(14):	
DAILY TABLES (YES=1,NO=0)	ISW(16) = 0
HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)	ISW(17) = 1
MAXIMUM 50 TABLES (YES=1,NO=0)	ISW(18) = 0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)	ISW(19) = 2
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)	ISW(20) = 0
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(21) = 1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(22) = 1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)	ISW(23) = 0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)	ISW(24) = 1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)	ISW(25) = 1
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)	ISW(26) = 1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)	ISW(27) = 2
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)	ISW(28) = 2
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)	ISW(29) = 1
DEBUG OPTION CHOSEN (YES=1,NO=2)	ISW(30) = 2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)	ISW(31) = 0
NUMBER OF INPUT SOURCES	NSOURC = 1
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP = 1
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD = 0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS = 1
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 50
NUMBER OF DISCRETE RECEPTORS	NXWYPT = 50
NUMBER OF HOURS PER DAY IN METEOROLOGICAL DATA	NHOURS = 1
NUMBER OF DAYS OF METEOROLOGICAL DATA	NDAYS = 55
SOURCE EMISSION RATE UNITS CONVERSION FACTOR	TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED	ZR = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 7
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 1138 WORDS

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH ***

*** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

1,

*** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

1,

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH ***

*** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

301430.0,

*** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

2155250.0, 2156250.0, 2157250.0, 2158250.0, 2159250.0, 2160250.0, 2161250.0, 2162250.0, 2163250.0, 2164250.0,
2165250.0, 2166250.0, 2167250.0, 2168250.0, 2169250.0, 2170250.0, 2171250.0, 2172250.0, 2173250.0, 2174250.0,
2175250.0, 2176250.0, 2177250.0, 2178250.0, 2179250.0, 2180250.0, 2181250.0, 2182250.0, 2183250.0, 2184250.0,
2185250.0, 2186250.0, 2187250.0, 2188250.0, 2189250.0, 2190250.0, 2191250.0, 2192250.0, 2193250.0, 2194250.0,
2195250.0, 2196250.0, 2197250.0, 2198250.0, 2199250.0, 2200250.0, 2201250.0, 2202250.0, 2203250.0, 2204250.0,

*** X,Y COORDINATES OF DISCRETE RECEPTORS ***
(METERS)

(301430.0,2155700.0), (301430.0,2155750.0), (301430.0,2155800.0), (301430.0,2155850.0), (301430.0,2155900.0),
(301430.0,2155950.0), (301430.0,2156050.0), (301430.0,2156100.0), (301430.0,2156150.0), (301430.0,2156200.0),
(301430.0,2156250.0), (301430.0,2156300.0), (301430.0,2156350.0), (301430.0,2156400.0), (301430.0,2156450.0),
(301430.0,2156500.0), (301430.0,2156550.0), (301430.0,2156600.0), (301430.0,2156650.0), (301430.0,2156700.0),
(301430.0,2156750.0), (301430.0,2156800.0), (301430.0,2156850.0), (301430.0,2156900.0), (301430.0,2156950.0),
(301430.0,2157100.0), (301430.0,2157200.0), (301430.0,2157300.0), (301430.0,2157400.0), (301430.0,2157500.0),
(301430.0,2157600.0), (301430.0,2157700.0), (301430.0,2157800.0), (301430.0,2157900.0), (301430.0,2158100.0),
(301430.0,2158200.0), (301430.0,2158300.0), (301430.0,2158400.0), (301430.0,2158500.0), (301430.0,2158600.0),
(301430.0,2158700.0), (301430.0,2158800.0), (301430.0,2158900.0), (301430.0,2159100.0), (301430.0,2159200.0),
(301430.0,2159300.0), (301430.0,2159400.0), (301430.0,2159500.0), (301430.0,2159600.0), (301430.0,2159700.0),
(

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAK	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	0	0	0	0.12096E+01	301430.0	2155250.0	204.2	6.00	588.00	9.03	1.47	8.53	107.75	107.75

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH ***

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 001 METERS OR THREE BUILDING HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
1	301430.0	2155250.0	0.00

HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 12.17553 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2204250.0	2.74738 (54, 1)
2203250.0	2.79843 (54, 1)
2202250.0	2.85139 (54, 1)
2201250.0	2.90639 (54, 1)
2200250.0	2.96354 (54, 1)
2199250.0	3.02297 (54, 1)
2198250.0	3.08483 (54, 1)
2197250.0	3.14927 (54, 1)
2196250.0	3.21644 (54, 1)
2195250.0	3.28654 (54, 1)
2194250.0	3.35975 (54, 1)
2193250.0	3.43630 (54, 1)
2192250.0	3.51641 (54, 1)
2191250.0	3.60034 (54, 1)
2190250.0	3.68838 (54, 1)
2189250.0	3.78083 (54, 1)
2188250.0	3.87805 (54, 1)
2187250.0	3.98040 (54, 1)
2186250.0	4.08832 (54, 1)
2185250.0	4.20228 (54, 1)
2184250.0	4.32155 (54, 1)
2183250.0	4.44750 (54, 1)
2182250.0	4.58072 (54, 1)
2181250.0	4.72185 (54, 1)
2180250.0	4.87161 (54, 1)
2179250.0	5.03080 (54, 1)
2178250.0	5.20032 (54, 1)
2177250.0	5.38120 (54, 1)
2176250.0	5.57460 (54, 1)
2175250.0	5.78185 (54, 1)
2174250.0	6.00444 (54, 1)
2173250.0	6.24412 (54, 1)
2172250.0	6.50288 (54, 1)
2171250.0	6.78301 (54, 1)
2170250.0	7.08717 (54, 1)
2169250.0	7.38635 (54, 1)
2168250.0	7.70361 (54, 1)
2167250.0	8.03902 (54, 1)

HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 12.17553 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2166250.0	8.39154 (54, 1)
2165250.0	8.75854 (54, 1)
2164250.0	9.13465 (54, 1)
2163250.0	9.50985 (54, 1)
2162250.0	9.86615 (54, 1)
2161250.0	10.03374 (54, 1)
2160250.0	10.02446 (54, 1)
2159250.0	10.16956 (55, 1)
2158250.0	10.10327 (55, 1)
2157250.0	9.85330 (46, 1)
2156250.0	12.17553 (35, 1)
2155250.0	0.00000 (0, 0)

1

HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY,HOUR)	- X -	- Y -	CON.	(DAY,HOUR)
301430.0	2155700.0	22.48568	(37, 1)	301430.0	2155750.0	20.76406	(37, 1)
301430.0	2155800.0	19.39162	(36, 1)	301430.0	2155850.0	18.21196	(36, 1)
301430.0	2155900.0	17.08992	(36, 1)	301430.0	2155950.0	16.03510	(36, 1)
301430.0	2156050.0	14.43931	(35, 1)	301430.0	2156100.0	13.62527	(35, 1)
301430.0	2156150.0	13.12840	(35, 1)	301430.0	2156200.0	12.64421	(35, 1)
301430.0	2156250.0	12.17553	(35, 1)	301430.0	2156300.0	11.72407	(35, 1)
301430.0	2156350.0	11.29080	(35, 1)	301430.0	2156400.0	10.87610	(35, 1)
301430.0	2156450.0	10.47995	(35, 1)	301430.0	2156500.0	10.10207	(35, 1)
301430.0	2156550.0	9.74196	(35, 1)	301430.0	2156600.0	9.72133	(48, 1)
301430.0	2156650.0	9.81001	(48, 1)	301430.0	2156700.0	9.89024	(48, 1)
301430.0	2156750.0	9.28740	(48, 1)	301430.0	2156800.0	9.33148	(48, 1)
301430.0	2156850.0	9.40074	(47, 1)	301430.0	2156900.0	9.46668	(47, 1)
301430.0	2156950.0	9.52718	(47, 1)	301430.0	2157100.0	9.68742	(46, 1)
301430.0	2157200.0	9.80238	(46, 1)	301430.0	2157300.0	9.90005	(46, 1)
301430.0	2157400.0	10.00599	(45, 1)	301430.0	2157500.0	10.11458	(45, 1)
301430.0	2157600.0	10.20907	(45, 1)	301430.0	2157700.0	10.29033	(45, 1)
301430.0	2157800.0	10.39432	(55, 1)	301430.0	2157900.0	9.94343	(55, 1)
301430.0	2158100.0	10.04591	(55, 1)	301430.0	2158200.0	10.08588	(55, 1)
301430.0	2158300.0	10.11900	(55, 1)	301430.0	2158400.0	10.14573	(55, 1)
301430.0	2158500.0	10.16650	(55, 1)	301430.0	2158600.0	10.18172	(55, 1)
301430.0	2158700.0	10.19177	(55, 1)	301430.0	2158800.0	10.19701	(55, 1)
301430.0	2158900.0	10.19778	(55, 1)	301430.0	2159100.0	10.18712	(55, 1)
301430.0	2159200.0	10.17626	(55, 1)	301430.0	2159300.0	10.16206	(55, 1)
301430.0	2159400.0	10.14477	(55, 1)	301430.0	2159500.0	10.12461	(55, 1)
301430.0	2159600.0	10.10180	(55, 1)	301430.0	2159700.0	10.07652	(55, 1)

2ND HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 11.36050 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2204250.0	2.02648 (55, 1)
2203250.0	2.06624 (55, 1)
2202250.0	2.10756 (55, 1)
2201250.0	2.15054 (55, 1)
2200250.0	2.19529 (55, 1)
2199250.0	2.24190 (55, 1)
2198250.0	2.29051 (55, 1)
2197250.0	2.34123 (55, 1)
2196250.0	2.39422 (55, 1)
2195250.0	2.44963 (55, 1)
2194250.0	2.50762 (55, 1)
2193250.0	2.56839 (55, 1)
2192250.0	2.63213 (55, 1)
2191250.0	2.69908 (55, 1)
2190250.0	2.76947 (55, 1)
2189250.0	2.84359 (55, 1)
2188250.0	2.92173 (55, 1)
2187250.0	3.00424 (55, 1)
2186250.0	3.09149 (55, 1)
2185250.0	3.18390 (55, 1)
2184250.0	3.28227 (55, 1)
2183250.0	3.38665 (55, 1)
2182250.0	3.49758 (55, 1)
2181250.0	3.61568 (55, 1)
2180250.0	3.74166 (55, 1)
2179250.0	3.87634 (55, 1)
2178250.0	4.02062 (55, 1)
2177250.0	4.17556 (55, 1)
2176250.0	4.34238 (55, 1)
2175250.0	4.52247 (55, 1)
2174250.0	4.71745 (55, 1)
2173250.0	4.92923 (55, 1)
2172250.0	5.16004 (55, 1)
2171250.0	5.41251 (55, 1)
2170250.0	5.68979 (55, 1)
2169250.0	5.99342 (55, 1)
2168250.0	6.31346 (55, 1)
2167250.0	6.66244 (55, 1)

2ND HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 11.36050 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2166250.0	7.04319 (55, 1)
2165250.0	7.45830 (55, 1)
2164250.0	7.90957 (55, 1)
2163250.0	8.39699 (55, 1)
2162250.0	8.91645 (55, 1)
2161250.0	9.48082 (55, 1)
2160250.0	9.90122 (55, 1)
2159250.0	9.76768 (52, 1)
2158250.0	9.94377 (45, 1)
2157250.0	9.81467 (45, 1)
2156250.0	11.36050 (36, 1)
2155250.0	0.00000 (0, 0)

1

2ND HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY,HOUR)	- X -	- Y -	CON.	(DAY,HOUR)
301430.0	2155700.0	21.83122	(36, 1)	301430.0	2155750.0	20.60954	(36, 1)
301430.0	2155800.0	19.17512	(37, 1)	301430.0	2155850.0	17.72320	(37, 1)
301430.0	2155900.0	16.40401	(37, 1)	301430.0	2155950.0	15.49016	(35, 1)
301430.0	2156050.0	14.13744	(36, 1)	301430.0	2156100.0	13.40517	(36, 1)
301430.0	2156150.0	12.66770	(36, 1)	301430.0	2156200.0	11.98781	(36, 1)
301430.0	2156250.0	11.36050	(36, 1)	301430.0	2156300.0	10.78109	(36, 1)
301430.0	2156350.0	10.34941	(34, 1)	301430.0	2156400.0	10.15187	(34, 1)
301430.0	2156450.0	9.94841	(34, 1)	301430.0	2156500.0	9.74135	(34, 1)
301430.0	2156550.0	9.62388	(48, 1)	301430.0	2156600.0	9.63145	(47, 1)
301430.0	2156650.0	9.76058	(47, 1)	301430.0	2156700.0	9.88163	(47, 1)
301430.0	2156750.0	9.25165	(47, 1)	301430.0	2156800.0	9.32913	(47, 1)
301430.0	2156850.0	9.36977	(48, 1)	301430.0	2156900.0	9.40259	(48, 1)
301430.0	2156950.0	9.47972	(46, 1)	301430.0	2157100.0	9.67818	(47, 1)
301430.0	2157200.0	9.75551	(47, 1)	301430.0	2157300.0	9.88239	(45, 1)
301430.0	2157400.0	9.98168	(46, 1)	301430.0	2157500.0	10.04847	(46, 1)
301430.0	2157600.0	10.14834	(55, 1)	301430.0	2157700.0	10.27745	(55, 1)
301430.0	2157800.0	10.35923	(45, 1)	301430.0	2157900.0	9.91783	(45, 1)
301430.0	2158100.0	9.94275	(45, 1)	301430.0	2158200.0	9.94497	(45, 1)
301430.0	2158300.0	9.94112	(45, 1)	301430.0	2158400.0	9.93171	(45, 1)
301430.0	2158500.0	9.91723	(45, 1)	301430.0	2158600.0	9.89812	(45, 1)
301430.0	2158700.0	9.87478	(45, 1)	301430.0	2158800.0	9.84759	(45, 1)
301430.0	2158900.0	9.81689	(45, 1)	301430.0	2159100.0	9.79217	(52, 1)
301430.0	2159200.0	9.77732	(52, 1)	301430.0	2159300.0	9.74600	(52, 1)
301430.0	2159400.0	9.78522	(54, 1)	301430.0	2159500.0	9.82807	(54, 1)
301430.0	2159600.0	9.86657	(54, 1)	301430.0	2159700.0	9.90092	(54, 1)

RUN ENDED ON 12-20-91 AT 14:21:47

1*

ISCST - (DATED 90346)

IBM-PC VERSION (2.04)
(C) COPYRIGHT 1990, TRINITY CONSULTANTS, INC.
SERIAL NUMBER 6688 SOLD TO ENVIRONMENTAL MANAGMENT ASSOCIATES
RUN BEGAN ON 12-20-91 AT 15:04:53

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)	ISW(1) =	1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)	ISW(2) =	3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)	ISW(3) =	1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)	ISW(4) =	0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)	ISW(5) =	0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)	ISW(6) =	1
COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)		
WITH THE FOLLOWING TIME PERIODS:		
HOURLY (YES=1,NO=0)	ISW(7) =	1
2-HOUR (YES=1,NO=0)	ISW(8) =	0
3-HOUR (YES=1,NO=0)	ISW(9) =	0
4-HOUR (YES=1,NO=0)	ISW(10) =	0
6-HOUR (YES=1,NO=0)	ISW(11) =	0
8-HOUR (YES=1,NO=0)	ISW(12) =	0
12-HOUR (YES=1,NO=0)	ISW(13) =	0
24-HOUR (YES=1,NO=0)	ISW(14) =	0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)	ISW(15) =	0
PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE		
SPECIFIED BY ISW(7) THROUGH ISW(14):		
DAILY TABLES (YES=1,NO=0)	ISW(16) =	0
HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)	ISW(17) =	1
MAXIMUM 50 TABLES (YES=1,NO=0)	ISW(18) =	0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)	ISW(19) =	2
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)	ISW(20) =	0
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(21) =	1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(22) =	1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)	ISW(23) =	0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)	ISW(24) =	1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)	ISW(25) =	1
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)	ISW(26) =	1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)	ISW(27) =	2
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)	ISW(28) =	2
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)	ISW(29) =	1
DEBUG OPTION CHOSEN (YES=1,NO=2)	ISW(30) =	2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)	ISW(31) =	1
NUMBER OF INPUT SOURCES	NSOURC =	1
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP =	1
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD =	0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS =	1
NUMBER OF Y (THETA) GRID VALUES	NYPNTS =	50
NUMBER OF DISCRETE RECEPTORS	NXWYPT =	50
NUMBER OF HOURS PER DAY IN METEOROLOGICAL DATA	NHOURS =	1
NUMBER OF DAYS OF METEOROLOGICAL DATA	NDAYS =	55
SOURCE EMISSION RATE UNITS CONVERSION FACTOR	TK =	.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED	ZR =	10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET =	7
ALLOCATED DATA STORAGE	LIMIT =	43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT =	1238 WORDS

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

0 *** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

1,

0 *** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

1,

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

*** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

301430.0,

*** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

2155250.0, 2156250.0, 2157250.0, 2158250.0, 2159250.0, 2160250.0, 2161250.0, 2162250.0, 2163250.0, 2164250.0,
2165250.0, 2166250.0, 2167250.0, 2168250.0, 2169250.0, 2170250.0, 2171250.0, 2172250.0, 2173250.0, 2174250.0,
2175250.0, 2176250.0, 2177250.0, 2178250.0, 2179250.0, 2180250.0, 2181250.0, 2182250.0, 2183250.0, 2184250.0,
2185250.0, 2186250.0, 2187250.0, 2188250.0, 2189250.0, 2190250.0, 2191250.0, 2192250.0, 2193250.0, 2194250.0,
2195250.0, 2196250.0, 2197250.0, 2198250.0, 2199250.0, 2200250.0, 2201250.0, 2202250.0, 2203250.0, 2204250.0,

*** X,Y COORDINATES OF DISCRETE RECEPTORS ***
(METERS)

(301430.0,2155700.0), (301430.0,2155750.0), (301430.0,2155800.0), (301430.0,2155850.0), (301430.0,2155900.0),
(301430.0,2155950.0), (301430.0,2156050.0), (301430.0,2156100.0), (301430.0,2156150.0), (301430.0,2156200.0),
(301430.0,2156250.0), (301430.0,2156300.0), (301430.0,2156350.0), (301430.0,2156400.0), (301430.0,2156450.0),
(301430.0,2156500.0), (301430.0,2156550.0), (301430.0,2156600.0), (301430.0,2156650.0), (301430.0,2156700.0),
(301430.0,2156750.0), (301430.0,2156800.0), (301430.0,2156850.0), (301430.0,2156900.0), (301430.0,2156950.0),
(301430.0,2157100.0), (301430.0,2157200.0), (301430.0,2157300.0), (301430.0,2157400.0), (301430.0,2157500.0),
(301430.0,2157600.0), (301430.0,2157700.0), (301430.0,2157800.0), (301430.0,2157900.0), (301430.0,2158100.0),
(301430.0,2158200.0), (301430.0,2158300.0), (301430.0,2158400.0), (301430.0,2158500.0), (301430.0,2158600.0),
(301430.0,2158700.0), (301430.0,2158800.0), (301430.0,2158900.0), (301430.0,2159100.0), (301430.0,2159200.0),
(301430.0,2159300.0), (301430.0,2159400.0), (301430.0,2159500.0), (301430.0,2159600.0), (301430.0,2159700.0),
(

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

* ABOVE GROUND RECEPTOR HEIGHTS IN METERS *
* FOR THE RECEPTOR GRID *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2204250.0	10.00000
2203250.0	10.00000
2202250.0	10.00000
2201250.0	10.00000
2200250.0	10.00000
2199250.0	10.00000
2198250.0	10.00000
2197250.0	10.00000
2196250.0	10.00000
2195250.0	10.00000
2194250.0	10.00000
2193250.0	10.00000
2192250.0	10.00000
2191250.0	10.00000
2190250.0	10.00000
2189250.0	10.00000
2188250.0	10.00000
2187250.0	10.00000
2186250.0	10.00000
2185250.0	10.00000
2184250.0	10.00000
2183250.0	10.00000
2182250.0	10.00000
2181250.0	10.00000
2180250.0	10.00000
2179250.0	10.00000
2178250.0	10.00000
2177250.0	10.00000
2176250.0	10.00000
2175250.0	10.00000
2174250.0	10.00000
2173250.0	10.00000
2172250.0	10.00000
2171250.0	10.00000
2170250.0	10.00000
2169250.0	10.00000
2168250.0	10.00000
2167250.0	10.00000

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

* ABOVE GROUND RECEPTOR HEIGHTS IN METERS *
* FOR THE RECEPTOR GRID *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2166250.0	10.00000
2165250.0	10.00000
2164250.0	10.00000
2163250.0	10.00000
2162250.0	10.00000
2161250.0	10.00000
2160250.0	10.00000
2159250.0	10.00000
2158250.0	10.00000
2157250.0	10.00000
2156250.0	10.00000
2155250.0	10.00000

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

* ABOVE GROUND RECEPTOR HEIGHTS IN METERS *
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	HGT.	- X -	- Y -	HGT.	- X -	- Y -	HGT.
301430.0	2155700.0	10.00000	301430.0	2155750.0	10.00000	301430.0	2155800.0	10.00000
301430.0	2155850.0	10.00000	301430.0	2155900.0	10.00000	301430.0	2155950.0	10.00000
301430.0	2156050.0	10.00000	301430.0	2156100.0	10.00000	301430.0	2156150.0	10.00000
301430.0	2156200.0	10.00000	301430.0	2156250.0	10.00000	301430.0	2156300.0	10.00000
301430.0	2156350.0	10.00000	301430.0	2156400.0	10.00000	301430.0	2156450.0	10.00000
301430.0	2156500.0	10.00000	301430.0	2156550.0	10.00000	301430.0	2156600.0	10.00000
301430.0	2156650.0	10.00000	301430.0	2156700.0	10.00000	301430.0	2156750.0	10.00000
301430.0	2156800.0	10.00000	301430.0	2156850.0	10.00000	301430.0	2156900.0	10.00000
301430.0	2156950.0	10.00000	301430.0	2157100.0	10.00000	301430.0	2157200.0	10.00000
301430.0	2157300.0	10.00000	301430.0	2157400.0	10.00000	301430.0	2157500.0	10.00000
301430.0	2157600.0	10.00000	301430.0	2157700.0	10.00000	301430.0	2157800.0	10.00000
301430.0	2157900.0	10.00000	301430.0	2158100.0	10.00000	301430.0	2158200.0	10.00000
301430.0	2158300.0	10.00000	301430.0	2158400.0	10.00000	301430.0	2158500.0	10.00000
301430.0	2158600.0	10.00000	301430.0	2158700.0	10.00000	301430.0	2158800.0	10.00000
301430.0	2158900.0	10.00000	301430.0	2159100.0	10.00000	301430.0	2159200.0	10.00000
301430.0	2159300.0	10.00000	301430.0	2159400.0	10.00000	301430.0	2159500.0	10.00000
301430.0	2159600.0	10.00000	301430.0	2159700.0	10.00000			

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	0	0	0	0.12096E+01	301430.0	2155250.0	204.2	6.00	588.00	9.03	1.47	0.00	0.00	0.00

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 001 METERS OR THREE BUILDING HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
1	301430.0	2155250.0	0.00

HIGH
1-HR
SCROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 12.20266 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2204250.0	2.74528 (54, 1)
2203250.0	2.79647 (54, 1)
2202250.0	2.84959 (54, 1)
2201250.0	2.90476 (54, 1)
2200250.0	2.96211 (54, 1)
2199250.0	3.02176 (54, 1)
2198250.0	3.08385 (54, 1)
2197250.0	3.14855 (54, 1)
2196250.0	3.21602 (54, 1)
2195250.0	3.28645 (54, 1)
2194250.0	3.36003 (54, 1)
2193250.0	3.43698 (54, 1)
2192250.0	3.51754 (54, 1)
2191250.0	3.60198 (54, 1)
2190250.0	3.69058 (54, 1)
2189250.0	3.78366 (54, 1)
2188250.0	3.88158 (54, 1)
2187250.0	3.98473 (54, 1)
2186250.0	4.09354 (54, 1)
2185250.0	4.20849 (54, 1)
2184250.0	4.32908 (54, 1)
2183250.0	4.45654 (54, 1)
2182250.0	4.59148 (54, 1)
2181250.0	4.73458 (54, 1)
2180250.0	4.88660 (54, 1)
2179250.0	5.04841 (54, 1)
2178250.0	5.22096 (54, 1)
2177250.0	5.40538 (54, 1)
2176250.0	5.60290 (54, 1)
2175250.0	5.81499 (54, 1)
2174250.0	6.04330 (54, 1)
2173250.0	6.28977 (54, 1)
2172250.0	6.55664 (54, 1)
2171250.0	6.84653 (54, 1)
2170250.0	7.16255 (54, 1)
2169250.0	7.47896 (54, 1)
2168250.0	7.81788 (54, 1)
2167250.0	8.18077 (54, 1)

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 12.20266 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2166250.0	8.56855 (54, 1)
2165250.0	8.98136 (54, 1)
2164250.0	9.41780 (54, 1)
2163250.0	9.87373 (54, 1)
2162250.0	10.33999 (54, 1)
2161250.0	10.67009 (54, 1)
2160250.0	10.88955 (54, 1)
2159250.0	10.90125 (54, 1)
2158250.0	10.64052 (55, 1)
2157250.0	9.72393 (46, 1)
2156250.0	12.20266 (35, 1)
2155250.0	0.00000 (0, 0)

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY,HOUR)	- X -	- Y -	CON.	(DAY,HOUR)
301430.0	2155700.0	22.34456	(37, 1)	301430.0	2155750.0	20.73078	(37, 1)
301430.0	2155800.0	19.25057	(37, 1)	301430.0	2155850.0	17.96546	(36, 1)
301430.0	2155900.0	16.98268	(36, 1)	301430.0	2155950.0	16.03971	(36, 1)
301430.0	2156050.0	14.29559	(36, 1)	301430.0	2156100.0	13.51955	(35, 1)
301430.0	2156150.0	13.08709	(35, 1)	301430.0	2156200.0	12.64574	(35, 1)
301430.0	2156250.0	12.20266	(35, 1)	301430.0	2156300.0	11.74883	(35, 1)
301430.0	2156350.0	11.31424	(35, 1)	301430.0	2156400.0	10.89891	(35, 1)
301430.0	2156450.0	10.50259	(35, 1)	301430.0	2156500.0	10.12479	(35, 1)
301430.0	2156550.0	9.76492	(35, 1)	301430.0	2156600.0	9.42228	(35, 1)
301430.0	2156650.0	9.10742	(34, 1)	301430.0	2156700.0	8.90324	(34, 1)
301430.0	2156750.0	8.77797	(48, 1)	301430.0	2156800.0	8.87773	(48, 1)
301430.0	2156850.0	8.96929	(48, 1)	301430.0	2156900.0	9.05299	(48, 1)
301430.0	2156950.0	9.14417	(47, 1)	301430.0	2157100.0	9.44492	(47, 1)
301430.0	2157200.0	9.62697	(46, 1)	301430.0	2157300.0	9.77428	(46, 1)
301430.0	2157400.0	9.86194	(46, 1)	301430.0	2157500.0	9.96841	(45, 1)
301430.0	2157600.0	10.06879	(45, 1)	301430.0	2157700.0	10.15550	(45, 1)
301430.0	2157800.0	10.22947	(45, 1)	301430.0	2157900.0	10.33882	(55, 1)
301430.0	2158100.0	10.52661	(55, 1)	301430.0	2158200.0	10.60502	(55, 1)
301430.0	2158300.0	10.64642	(55, 1)	301430.0	2158400.0	10.65394	(55, 1)
301430.0	2158500.0	10.67802	(54, 1)	301430.0	2158600.0	10.72327	(54, 1)
301430.0	2158700.0	10.76326	(54, 1)	301430.0	2158800.0	10.79827	(54, 1)
301430.0	2158900.0	10.82858	(54, 1)	301430.0	2159100.0	10.87611	(54, 1)
301430.0	2159200.0	10.89382	(54, 1)	301430.0	2159300.0	10.90778	(54, 1)
301430.0	2159400.0	10.91821	(54, 1)	301430.0	2159500.0	10.92530	(54, 1)
301430.0	2159600.0	10.92924	(54, 1)	301430.0	2159700.0	10.93021	(54, 1)

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 11.40498 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2204250.0	2.02201 (55, 1)
2203250.0	2.06176 (55, 1)
2202250.0	2.10307 (55, 1)
2201250.0	2.14605 (55, 1)
2200250.0	2.19079 (55, 1)
2199250.0	2.23742 (55, 1)
2198250.0	2.28604 (55, 1)
2197250.0	2.33679 (55, 1)
2196250.0	2.38982 (55, 1)
2195250.0	2.44527 (55, 1)
2194250.0	2.50333 (55, 1)
2193250.0	2.56418 (55, 1)
2192250.0	2.62802 (55, 1)
2191250.0	2.69508 (55, 1)
2190250.0	2.76562 (55, 1)
2189250.0	2.83991 (55, 1)
2188250.0	2.91826 (55, 1)
2187250.0	3.00101 (55, 1)
2186250.0	3.08854 (55, 1)
2185250.0	3.18129 (55, 1)
2184250.0	3.28017 (55, 1)
2183250.0	3.38514 (55, 1)
2182250.0	3.49677 (55, 1)
2181250.0	3.61570 (55, 1)
2180250.0	3.74268 (55, 1)
2179250.0	3.87853 (55, 1)
2178250.0	4.02422 (55, 1)
2177250.0	4.18086 (55, 1)
2176250.0	4.34971 (55, 1)
2175250.0	4.53224 (55, 1)
2174250.0	4.73020 (55, 1)
2173250.0	4.94560 (55, 1)
2172250.0	5.18085 (55, 1)
2171250.0	5.43880 (55, 1)
2170250.0	5.72291 (55, 1)
2169250.0	6.02403 (55, 1)
2168250.0	6.35337 (55, 1)
2167250.0	6.71446 (55, 1)

1

2ND HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 11.40498 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2166250.0	7.11116 (55, 1)
2165250.0	7.54755 (55, 1)
2164250.0	8.02770 (55, 1)
2163250.0	8.55498 (55, 1)
2162250.0	9.13062 (55, 1)
2161250.0	9.66063 (55, 1)
2160250.0	10.15736 (55, 1)
2159250.0	10.53946 (55, 1)
2158250.0	10.53978 (54, 1)
2157250.0	9.68741 (47, 1)
2156250.0	11.40498 (36, 1)
2155250.0	0.00000 (0, 0)

1

2ND HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/10M FLAGPOLE ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY,HOUR)	- X -	- Y -	CON.	(DAY,HOUR)
301430.0	2155700.0	22.21516	(38, 1)	301430.0	2155750.0	20.13860	(38, 1)
301430.0	2155800.0	18.97762	(36, 1)	301430.0	2155850.0	17.89299	(37, 1)
301430.0	2155900.0	16.64859	(37, 1)	301430.0	2155950.0	15.50882	(37, 1)
301430.0	2156050.0	13.93378	(35, 1)	301430.0	2156100.0	13.49898	(36, 1)
301430.0	2156150.0	12.75273	(36, 1)	301430.0	2156200.0	12.05542	(36, 1)
301430.0	2156250.0	11.40498	(36, 1)	301430.0	2156300.0	10.82385	(36, 1)
301430.0	2156350.0	10.33417	(34, 1)	301430.0	2156400.0	10.13673	(34, 1)
301430.0	2156450.0	9.93404	(34, 1)	301430.0	2156500.0	9.72819	(34, 1)
301430.0	2156550.0	9.52091	(34, 1)	301430.0	2156600.0	9.31362	(34, 1)
301430.0	2156650.0	9.09613	(35, 1)	301430.0	2156700.0	8.78570	(35, 1)
301430.0	2156750.0	8.74847	(49, 1)	301430.0	2156800.0	8.81555	(49, 1)
301430.0	2156850.0	8.90865	(47, 1)	301430.0	2156900.0	9.03003	(47, 1)
301430.0	2156950.0	9.12914	(48, 1)	301430.0	2157100.0	9.41506	(46, 1)
301430.0	2157200.0	9.61271	(47, 1)	301430.0	2157300.0	9.72274	(45, 1)
301430.0	2157400.0	9.85340	(45, 1)	301430.0	2157500.0	9.93413	(46, 1)
301430.0	2157600.0	9.99211	(46, 1)	301430.0	2157700.0	10.10573	(55, 1)
301430.0	2157800.0	10.22824	(55, 1)	301430.0	2157900.0	10.29160	(45, 1)
301430.0	2158100.0	10.38358	(45, 1)	301430.0	2158200.0	10.47576	(54, 1)
301430.0	2158300.0	10.57046	(54, 1)	301430.0	2158400.0	10.62719	(54, 1)
301430.0	2158500.0	10.65614	(55, 1)	301430.0	2158600.0	10.65341	(55, 1)
301430.0	2158700.0	10.64616	(55, 1)	301430.0	2158800.0	10.63470	(55, 1)
301430.0	2158900.0	10.61938	(55, 1)	301430.0	2159100.0	10.57832	(55, 1)
301430.0	2159200.0	10.55312	(55, 1)	301430.0	2159300.0	10.52513	(55, 1)
301430.0	2159400.0	10.49459	(55, 1)	301430.0	2159500.0	10.46169	(55, 1)
301430.0	2159600.0	10.42663	(55, 1)	301430.0	2159700.0	10.38958	(55, 1)

RUN ENDED ON 12-20-91 AT 15:05:06

ISCST - (DATED 90346)

IBM-PC VERSION (2.04)

SERIAL NUMBER 6688 SOLD TO ENVIRONMENTAL MANAGMENT ASSOCIATES
RUN BEGAN ON 12-20-91 AT 16:22:38

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)	ISW(1) = 1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)	ISW(2) = 3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)	ISW(3) = 1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)	ISW(4) = 0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)	ISW(5) = 0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)	ISW(6) = 1
COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)	
WITH THE FOLLOWING TIME PERIODS:	
HOURLY (YES=1,NO=0)	ISW(7) = 1
2-HOUR (YES=1,NO=0)	ISW(8) = 0
3-HOUR (YES=1,NO=0)	ISW(9) = 0
4-HOUR (YES=1,NO=0)	ISW(10) = 0
6-HOUR (YES=1,NO=0)	ISW(11) = 0
8-HOUR (YES=1,NO=0)	ISW(12) = 0
12-HOUR (YES=1,NO=0)	ISW(13) = 0
24-HOUR (YES=1,NO=0)	ISW(14) = 0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)	ISW(15) = 0
PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE	
SPECIFIED BY ISW(7) THROUGH ISW(14):	
DAILY TABLES (YES=1,NO=0)	ISW(16) = 0
HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)	ISW(17) = 1
MAXIMUM 50 TABLES (YES=1,NO=0)	ISW(18) = 0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)	ISW(19) = 2
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)	ISW(20) = 0
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(21) = 1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(22) = 1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)	ISW(23) = 0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)	ISW(24) = 1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)	ISW(25) = 1
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)	ISW(26) = 1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)	ISW(27) = 2
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)	ISW(28) = 2
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)	ISW(29) = 1
DEBUG OPTION CHOSEN (YES=1,NO=2)	ISW(30) = 2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)	ISW(31) = 1
NUMBER OF INPUT SOURCES	NSOURC = 1
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP = 1
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD = 0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS = 1
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 50
NUMBER OF DISCRETE RECEPTORS	NXWYPT = 50
NUMBER OF HOURS PER DAY IN METEOROLOGICAL DATA	NHOURS = 1
NUMBER OF DAYS OF METEOROLOGICAL DATA	NDAYS = 55
SOURCE EMISSION RATE UNITS CONVERSION FACTOR	TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED	ZR = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 7
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 1238 WORDS

`1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

0 *** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

1,

0 *** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

1,

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

*** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

301430.0,

*** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

2155250.0, 2156250.0, 2157250.0, 2158250.0, 2159250.0, 2160250.0, 2161250.0, 2162250.0, 2163250.0, 2164250.0,
2165250.0, 2166250.0, 2167250.0, 2168250.0, 2169250.0, 2170250.0, 2171250.0, 2172250.0, 2173250.0, 2174250.0,
2175250.0, 2176250.0, 2177250.0, 2178250.0, 2179250.0, 2180250.0, 2181250.0, 2182250.0, 2183250.0, 2184250.0,
2185250.0, 2186250.0, 2187250.0, 2188250.0, 2189250.0, 2190250.0, 2191250.0, 2192250.0, 2193250.0, 2194250.0,
2195250.0, 2196250.0, 2197250.0, 2198250.0, 2199250.0, 2200250.0, 2201250.0, 2202250.0, 2203250.0, 2204250.0,

*** X,Y COORDINATES OF DISCRETE RECEPTORS ***
(METERS)

(301430.0,2155700.0), (301430.0,2155750.0), (301430.0,2155800.0), (301430.0,2155850.0), (301430.0,2155900.0),
(301430.0,2155950.0), (301430.0,2156050.0), (301430.0,2156100.0), (301430.0,2156150.0), (301430.0,2156200.0),
(301430.0,2156250.0), (301430.0,2156300.0), (301430.0,2156350.0), (301430.0,2156400.0), (301430.0,2156450.0),
(301430.0,2156500.0), (301430.0,2156550.0), (301430.0,2156600.0), (301430.0,2156650.0), (301430.0,2156700.0),
(301430.0,2156750.0), (301430.0,2156800.0), (301430.0,2156850.0), (301430.0,2156900.0), (301430.0,2156950.0),
(301430.0,2157100.0), (301430.0,2157200.0), (301430.0,2157300.0), (301430.0,2157400.0), (301430.0,2157500.0),
(301430.0,2157600.0), (301430.0,2157700.0), (301430.0,2157800.0), (301430.0,2157900.0), (301430.0,2158100.0),
(301430.0,2158200.0), (301430.0,2158300.0), (301430.0,2158400.0), (301430.0,2158500.0), (301430.0,2158600.0),
(301430.0,2158700.0), (301430.0,2158800.0), (301430.0,2158900.0), (301430.0,2159100.0), (301430.0,2159200.0),
(301430.0,2159300.0), (301430.0,2159400.0), (301430.0,2159500.0), (301430.0,2159600.0), (301430.0,2159700.0),
(

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

* ABOVE GROUND RECEPTOR HEIGHTS IN METERS *
* FOR THE RECEPTOR GRID *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2204250.0	10.00000
2203250.0	10.00000
2202250.0	10.00000
2201250.0	10.00000
2200250.0	10.00000
2199250.0	10.00000
2198250.0	10.00000
2197250.0	10.00000
2196250.0	10.00000
2195250.0	10.00000
2194250.0	10.00000
2193250.0	10.00000
2192250.0	10.00000
2191250.0	10.00000
2190250.0	10.00000
2189250.0	10.00000
2188250.0	10.00000
2187250.0	10.00000
2186250.0	10.00000
2185250.0	10.00000
2184250.0	10.00000
2183250.0	10.00000
2182250.0	10.00000
2181250.0	10.00000
2180250.0	10.00000
2179250.0	10.00000
2178250.0	10.00000
2177250.0	10.00000
2176250.0	10.00000
2175250.0	10.00000
2174250.0	10.00000
2173250.0	10.00000
2172250.0	10.00000
2171250.0	10.00000
2170250.0	10.00000
2169250.0	10.00000
2168250.0	10.00000
2167250.0	10.00000

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

* ABOVE GROUND RECEPTOR HEIGHTS IN METERS *
* FOR THE RECEPTOR GRID *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2166250.0	10.00000
2165250.0	10.00000
2164250.0	10.00000
2163250.0	10.00000
2162250.0	10.00000
2161250.0	10.00000
2160250.0	10.00000
2159250.0	10.00000
2158250.0	10.00000
2157250.0	10.00000
2156250.0	10.00000
2155250.0	10.00000

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

* ABOVE GROUND RECEPTOR HEIGHTS IN METERS *
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	HGT.	- X -	- Y -	HGT.	- X -	- Y -	HGT.
301430.0	2155700.0	10.00000	301430.0	2155750.0	10.00000	301430.0	2155800.0	10.00000
301430.0	2155850.0	10.00000	301430.0	2155900.0	10.00000	301430.0	2155950.0	10.00000
301430.0	2156050.0	10.00000	301430.0	2156100.0	10.00000	301430.0	2156150.0	10.00000
301430.0	2156200.0	10.00000	301430.0	2156250.0	10.00000	301430.0	2156300.0	10.00000
301430.0	2156350.0	10.00000	301430.0	2156400.0	10.00000	301430.0	2156450.0	10.00000
301430.0	2156500.0	10.00000	301430.0	2156550.0	10.00000	301430.0	2156600.0	10.00000
301430.0	2156650.0	10.00000	301430.0	2156700.0	10.00000	301430.0	2156750.0	10.00000
301430.0	2156800.0	10.00000	301430.0	2156850.0	10.00000	301430.0	2156900.0	10.00000
301430.0	2156950.0	10.00000	301430.0	2157100.0	10.00000	301430.0	2157200.0	10.00000
301430.0	2157300.0	10.00000	301430.0	2157400.0	10.00000	301430.0	2157500.0	10.00000
301430.0	2157600.0	10.00000	301430.0	2157700.0	10.00000	301430.0	2157800.0	10.00000
301430.0	2157900.0	10.00000	301430.0	2158100.0	10.00000	301430.0	2158200.0	10.00000
301430.0	2158300.0	10.00000	301430.0	2158400.0	10.00000	301430.0	2158500.0	10.00000
301430.0	2158600.0	10.00000	301430.0	2158700.0	10.00000	301430.0	2158800.0	10.00000
301430.0	2158900.0	10.00000	301430.0	2159100.0	10.00000	301430.0	2159200.0	10.00000
301430.0	2159300.0	10.00000	301430.0	2159400.0	10.00000	301430.0	2159500.0	10.00000
301430.0	2159600.0	10.00000	301430.0	2159700.0	10.00000			

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE E	WAK E	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	0	0	0	0.12096E+01	301430.0	2155250.0	204.2	6.00	588.00	9.03	1.47	8.53	107.75	107.75

1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 001 METERS OR THREE BUILDING HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
1	301430.0	2155250.0	0.00

HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 12.55373 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2204250.0	2.74528 (54, 1)
2203250.0	2.79647 (54, 1)
2202250.0	2.84959 (54, 1)
2201250.0	2.90476 (54, 1)
2200250.0	2.96211 (54, 1)
2199250.0	3.02176 (54, 1)
2198250.0	3.08385 (54, 1)
2197250.0	3.14855 (54, 1)
2196250.0	3.21602 (54, 1)
2195250.0	3.28645 (54, 1)
2194250.0	3.36003 (54, 1)
2193250.0	3.43698 (54, 1)
2192250.0	3.51754 (54, 1)
2191250.0	3.60198 (54, 1)
2190250.0	3.69058 (54, 1)
2189250.0	3.78366 (54, 1)
2188250.0	3.88158 (54, 1)
2187250.0	3.98473 (54, 1)
2186250.0	4.09354 (54, 1)
2185250.0	4.20849 (54, 1)
2184250.0	4.32908 (54, 1)
2183250.0	4.45654 (54, 1)
2182250.0	4.59148 (54, 1)
2181250.0	4.73458 (54, 1)
2180250.0	4.88660 (54, 1)
2179250.0	5.04841 (54, 1)
2178250.0	5.22096 (54, 1)
2177250.0	5.40538 (54, 1)
2176250.0	5.60290 (54, 1)
2175250.0	5.81499 (54, 1)
2174250.0	6.04330 (54, 1)
2173250.0	6.28977 (54, 1)
2172250.0	6.55664 (54, 1)
2171250.0	6.84653 (54, 1)
2170250.0	7.16255 (54, 1)
2169250.0	7.47896 (54, 1)
2168250.0	7.81788 (54, 1)
2167250.0	8.18077 (54, 1)

1

HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 12.55373 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2166250.0	8.56855 (54, 1)
2165250.0	8.98136 (54, 1)
2164250.0	9.41780 (54, 1)
2163250.0	9.87373 (54, 1)
2162250.0	10.33999 (54, 1)
2161250.0	10.67009 (54, 1)
2160250.0	10.88955 (54, 1)
2159250.0	11.10997 (55, 1)
2158250.0	11.54433 (55, 1)
2157250.0	11.94598 (45, 1)
2156250.0	12.55373 (48, 1)
2155250.0	0.00000 (0, 0)

1

HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY,HOUR)	- X -	- Y -	CON.	(DAY,HOUR)
301430.0	2155700.0	23.18698	(36, 1)	301430.0	2155750.0	21.43420	(36, 1)
301430.0	2155800.0	19.86499	(36, 1)	301430.0	2155850.0	18.45338	(36, 1)
301430.0	2155900.0	17.17897	(36, 1)	301430.0	2155950.0	16.07866	(35, 1)
301430.0	2156050.0	14.73745	(35, 1)	301430.0	2156100.0	13.92836	(35, 1)
301430.0	2156150.0	13.35229	(35, 1)	301430.0	2156200.0	12.80601	(35, 1)
301430.0	2156250.0	12.55373	(48, 1)	301430.0	2156300.0	12.54197	(48, 1)
301430.0	2156350.0	12.52625	(48, 1)	301430.0	2156400.0	12.50672	(48, 1)
301430.0	2156450.0	12.48355	(48, 1)	301430.0	2156500.0	12.50606	(47, 1)
301430.0	2156550.0	12.53032	(47, 1)	301430.0	2156600.0	12.55000	(47, 1)
301430.0	2156650.0	12.56525	(47, 1)	301430.0	2156700.0	12.58410	(46, 1)
301430.0	2156750.0	11.89644	(47, 1)	301430.0	2156800.0	11.89100	(46, 1)
301430.0	2156850.0	11.89488	(46, 1)	301430.0	2156900.0	11.89594	(46, 1)
301430.0	2156950.0	11.89429	(46, 1)	301430.0	2157100.0	11.90949	(45, 1)
301430.0	2157200.0	11.93634	(45, 1)	301430.0	2157300.0	11.95321	(45, 1)
301430.0	2157400.0	11.96081	(45, 1)	301430.0	2157500.0	12.01098	(55, 1)
301430.0	2157600.0	12.05871	(55, 1)	301430.0	2157700.0	12.09774	(55, 1)
301430.0	2157800.0	12.12859	(55, 1)	301430.0	2157900.0	11.62711	(55, 1)
301430.0	2158100.0	11.58578	(55, 1)	301430.0	2158200.0	11.55906	(55, 1)
301430.0	2158300.0	11.52873	(55, 1)	301430.0	2158400.0	11.49510	(55, 1)
301430.0	2158500.0	11.45844	(55, 1)	301430.0	2158600.0	11.41900	(55, 1)
301430.0	2158700.0	11.37703	(55, 1)	301430.0	2158800.0	11.33274	(55, 1)
301430.0	2158900.0	11.28634	(55, 1)	301430.0	2159100.0	11.18797	(55, 1)
301430.0	2159200.0	11.13633	(55, 1)	301430.0	2159300.0	11.08327	(55, 1)
301430.0	2159400.0	11.02892	(55, 1)	301430.0	2159500.0	10.97342	(55, 1)
301430.0	2159600.0	10.92924	(54, 1)	301430.0	2159700.0	10.93021	(54, 1)

2ND HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 12.31054 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS) /	X-AXIS (METERS) 301430.0
2204250.0 /	2.02201 (55, 1)
2203250.0 /	2.06176 (55, 1)
2202250.0 /	2.10307 (55, 1)
2201250.0 /	2.14605 (55, 1)
2200250.0 /	2.19079 (55, 1)
2199250.0 /	2.23742 (55, 1)
2198250.0 /	2.28604 (55, 1)
2197250.0 /	2.33679 (55, 1)
2196250.0 /	2.38982 (55, 1)
2195250.0 /	2.44527 (55, 1)
2194250.0 /	2.50333 (55, 1)
2193250.0 /	2.56418 (55, 1)
2192250.0 /	2.62802 (55, 1)
2191250.0 /	2.69508 (55, 1)
2190250.0 /	2.76562 (55, 1)
2189250.0 /	2.83991 (55, 1)
2188250.0 /	2.91826 (55, 1)
2187250.0 /	3.00101 (55, 1)
2186250.0 /	3.08854 (55, 1)
2185250.0 /	3.18129 (55, 1)
2184250.0 /	3.28017 (55, 1)
2183250.0 /	3.38514 (55, 1)
2182250.0 /	3.49676 (55, 1)
2181250.0 /	3.61570 (55, 1)
2180250.0 /	3.74268 (55, 1)
2179250.0 /	3.87853 (55, 1)
2178250.0 /	4.02423 (55, 1)
2177250.0 /	4.18087 (55, 1)
2176250.0 /	4.34973 (55, 1)
2175250.0 /	4.53227 (55, 1)
2174250.0 /	4.73024 (55, 1)
2173250.0 /	4.94565 (55, 1)
2172250.0 /	5.18091 (55, 1)
2171250.0 /	5.43889 (55, 1)
2170250.0 /	5.72302 (55, 1)
2169250.0 /	6.03553 (55, 1)
2168250.0 /	6.36872 (55, 1)
2167250.0 /	6.73494 (55, 1)

1

2ND HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 12.31054 AND OCCURRED AT (301430.0, 2156250.0) *

Y-AXIS (METERS)	X-AXIS (METERS) 301430.0
2166250.0	7.13857 (55, 1)
2165250.0	7.58448 (55, 1)
2164250.0	8.07794 (55, 1)
2163250.0	8.62425 (55, 1)
2162250.0	9.22787 (55, 1)
2161250.0	9.91324 (55, 1)
2160250.0	10.53142 (55, 1)
2159250.0	10.90125 (54, 1)
2158250.0	11.20258 (45, 1)
2157250.0	11.85033 (55, 1)
2156250.0	12.31054 (47, 1)
2155250.0	0.00000 (0, 0)

1

2ND HIGH
1-HR
SGROUP# 1

*** PGV STEAM BOILER - SO2 - FLAT TERRAIN/DOWNWASH/10M DOWNWASH ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY,HOUR)	- X -	- Y -	CON.	(DAY,HOUR)
301430.0	2155700.0	23.08079	(37, 1)	301430.0	2155750.0	20.99767	(37, 1)
301430.0	2155800.0	19.19253	(37, 1)	301430.0	2155850.0	17.61400	(37, 1)
301430.0	2155900.0	16.77412	(35, 1)	301430.0	2155950.0	16.02510	(36, 1)
301430.0	2156050.0	14.02507	(36, 1)	301430.0	2156100.0	13.30700	(36, 1)
301430.0	2156150.0	12.56452	(48, 1)	301430.0	2156200.0	12.56132	(48, 1)
301430.0	2156250.0	12.31054	(47, 1)	301430.0	2156300.0	12.36010	(47, 1)
301430.0	2156350.0	12.40425	(47, 1)	301430.0	2156400.0	12.44319	(47, 1)
301430.0	2156450.0	12.47707	(47, 1)	301430.0	2156500.0	12.45689	(48, 1)
301430.0	2156550.0	12.44388	(46, 1)	301430.0	2156600.0	12.49544	(46, 1)
301430.0	2156650.0	12.54214	(46, 1)	301430.0	2156700.0	12.57623	(47, 1)
301430.0	2156750.0	11.88417	(46, 1)	301430.0	2156800.0	11.87798	(47, 1)
301430.0	2156850.0	11.85712	(47, 1)	301430.0	2156900.0	11.83398	(47, 1)
301430.0	2156950.0	11.84886	(45, 1)	301430.0	2157100.0	11.87429	(46, 1)
301430.0	2157200.0	11.84949	(46, 1)	301430.0	2157300.0	11.88745	(55, 1)
301430.0	2157400.0	11.95407	(55, 1)	301430.0	2157500.0	11.95981	(45, 1)
301430.0	2157600.0	11.95086	(45, 1)	301430.0	2157700.0	11.93456	(45, 1)
301430.0	2157800.0	11.91147	(45, 1)	301430.0	2157900.0	11.42769	(45, 1)
301430.0	2158100.0	11.30275	(45, 1)	301430.0	2158200.0	11.23651	(45, 1)
301430.0	2158300.0	11.16815	(45, 1)	301430.0	2158400.0	11.09793	(45, 1)
301430.0	2158500.0	11.02611	(45, 1)	301430.0	2158600.0	10.95289	(45, 1)
301430.0	2158700.0	10.87849	(45, 1)	301430.0	2158800.0	10.80309	(45, 1)
301430.0	2158900.0	10.82858	(54, 1)	301430.0	2159100.0	10.87611	(54, 1)
301430.0	2159200.0	10.89382	(54, 1)	301430.0	2159300.0	10.90778	(54, 1)
301430.0	2159400.0	10.91821	(54, 1)	301430.0	2159500.0	10.92530	(54, 1)
301430.0	2159600.0	10.91689	(55, 1)	301430.0	2159700.0	10.85944	(55, 1)

RUN ENDED ON 12-20-91 AT 16:22:52

1 COMPLEX-1 (DATED 5)

IBM-PC VERSION 2.01
(C) COPYRIGHT 1986, TRINITY CONSULTANTS, INC,
SERIAL NUMBER 7006 SOLD TO FORSGREN ASSOCIATES
RUN BEGAN ON 12-22-91 AT 18:15:39

0 COMPLEX I (DATED 90095)

PGV STEAM BOILER - SO2
COMPLEX TERRAIN SCREEN ANALYSIS USING COMPLEX I
TERRAIN ELEVATIONS FROM ORIGINAL ATC APPLICATION

0 GENERAL INPUT INFORMATION

THIS RUN OF COMPLEX I/VALLEY OPTION IS FOR THE POLLUTANT SO2 FOR 1 WIND DIRECTIONS.
A FACTOR OF 1.0000000 HAS BEEN SPECIFIED TO CONVERT USER LENGTH UNITS TO KILOMETERS.
0 SIGNIFICANT SOURCES ARE TO BE CONSIDERED.
THIS RUN WILL NOT CONSIDER ANY POLLUTANT LOSS.
HIGH-FIVE SUMMARY 24-HOUR AVERAGE CONCENTRATION TABLES WILL BE OUTPUT FOR EACH RECEPTOR.
A FACTOR OF .3048010 HAS BEEN SPECIFIED TO CONVERT USER HEIGHT UNITS TO METERS.

0 OPTION	OPTION LIST	OPTION SPECIFICATION : 0= IGNORE OPTION 1= USE OPTION
	TECHNICAL OPTIONS	
1	TERRAIN ADJUSTMENTS	1
2	DO NOT INCLUDE STACK DOWNWASH CALCULATIONS	0
3	DO NOT INCLUDE GRADUAL PLUME RISE CALCULATIONS	0
4	CALCULATE INITIAL PLUME SIZE	1
	INPUT OPTIONS	
5	READ MET DATA FROM CARDS	1
6	READ HOURLY EMISSIONS	0
7	SPECIFY SIGNIFICANT SOURCES	0
8	READ RADIAL DISTANCES TO GENERATE RECEPTORS	0
	PRINTED OUTPUT OPTIONS	
9	DELETE EMISSIONS WITH HEIGHT TABLE	1
10	DELETE MET DATA SUMMARY FOR AVG PERIOD	1
11	DELETE HOURLY CONTRIBUTIONS	1
12	DELETE MET DATA ON HOURLY CONTRIBUTIONS	1
13	DELETE FINAL PLUME RISE CALC ON HRLY CONTRIBUTIONS	1
14	DELETE HOURLY SUMMARY	1
15	DELETE MET DATA ON HRLY SUMMARY	1
16	DELETE FINAL PLUME RISE CALC ON HRLY SUMMARY	1
17	DELETE AVG-PERIOD CONTRIBUTIONS	1
18	DELETE AVERAGING PERIOD SUMMARY	1
19	DELETE AVG CONCENTRATIONS AND HI-5 TABLES	0
	OTHER CONTROL AND OUTPUT OPTIONS	
20	RUN IS PART OF A SEGMENTED RUN	0
21	WRITE PARTIAL CONC TO DISK OR TAPE	0
22	WRITE HOURLY CONC TO DISK OR TAPE	0
23	WRITE AVG-PERIOD CONC TO DISK OR TAPE	0
24	PUNCH AVG-PERIOD CONC ONTO CARDS	0
25	COMPLEX TERRAIN OPTION	0
26	CALM PROCESSING OPTION	0
27	VALLEY SCREENING OPTION	1

0ANEMOMETER HEIGHT IS: 10.00
EXPONENTS FOR POWER- LAW WIND INCREASE WITH HEIGHT ARE: .07, .07, .10, .15, .35, .55
TERRAIN ADJUSTMENTS ARE: .500, .500, .500, .500, .000, .000 ZMIN IS 10.0

1 BECAUSE THE VALLEY OPTION HAS BEEN SELECTED, THE FOLLOWING
OPTIONS AND PARAMETERS HAVE BEEN SET BY THE MODEL, OVERRIDING VALUES
PROVIDED BY THE USER:

IOPT(5), IOPT(10), IOPT(12), IOPT(15), IOPT(17), IOPT(18) = 1
IOPT(6), IOPT(20) THRU IOPT(26) = 0
NAVG = 1 NAV5 = 0
IHSTRT = 1 CONTER(6) = 0.
ZMIN = 10. IKST = 6
QU = 2.5 QHL = 9999.

1 NT SOURCE INFORMATION

SOURCE	EAST COORD (USER UNITS)	NORTH COORD (USER UNITS)	SO2(G/SEC) EMISSIONS	PART(G/SEC) EMISSIONS	STACK HT(M)	STACK TEMP(K)	STACK DIAM(M)	STACK VEL(M/SEC)	GRD-LVL ELEV USER HT UNITS	BUOY FLUX F M**4/S**3
1 Steam Boiler	.00	.00	1.21	.00	6.0	588.0	1.5	9.0	670.00	24.05

0 ADDITIONAL INFORMATION ON SOURCES.
0 EMISSION INFORMATION FOR 1 (NPT) POINT SOURCES HAS BEEN INPUT
0 SIGNIFICANT POINT SOURCES(NSIGP) ARE TO BE USED FOR THIS RUN
THE ORDER OF SIGNIFICANCE(IMPS) FOR 25 OR LESS POINT SOURCES USED IN THIS RUN AS LISTED BY POINT SOURCE NUMBER:

0 RECEPTOR INFORMATION

0 RECEPTOR	IDENTIFICATION	EAST COORD (USER UNITS)	NORTH COORD ABV (USER UNITS)	RECEPTOR HT LOCAL GRD LVL (METERS)	RECEPTOR GROUND LEVEL ELEVATION (USER HT UNITS)
1	23	.000	.220	.0	720.0
2	24	.000	.289	.0	700.0
3	26	.000	1.790	.0	700.0
4	25	.000	1.792	.0	700.0
5	270,2.10	.000	2.111	.0	720.0
6	50	.000	2.111	.0	700.0
7	49	.000	2.240	.0	710.0
8	124	.000	2.340	.0	720.0
9	48	.000	2.356	.0	705.0
10	47	.000	2.462	.0	700.0
11	126	.000	2.526	.0	707.0
12	46	.000	2.556	.0	700.0
13	122	.000	2.559	.0	700.0
14	45	.000	2.631	.0	710.0
15	56	.000	2.691	.0	760.0
16	44	.000	2.694	.0	720.0
17	43	.000	2.745	.0	740.0
18	52	.000	2.758	.0	700.0
19	53	.000	2.765	.0	750.0
20	54	.000	2.774	.0	750.0
21	42	.000	2.774	.0	745.0
22	55	.000	2.784	.0	740.0
23	250,2.80	.000	2.789	.0	760.0
24	57	.000	2.803	.0	755.0
25	58	.000	2.811	.0	730.0
26	59	.000	2.822	.0	690.0
27	121	.000	2.890	.0	740.0
28	67	.000	3.197	.0	720.0
29	66	.000	3.315	.0	760.0
30	65	.000	3.432	.0	780.0
31	64	.000	3.528	.0	780.0
32	63	.000	3.620	.0	795.0
33	69	.000	3.666	.0	800.0
34	230,3.70	.000	3.669	.0	860.0
35	70	.000	3.675	.0	860.0
36	71	.000	3.684	.0	815.0
37	62	.000	3.688	.0	830.0
38	72	.000	3.694	.0	810.0
39	73	.000	3.707	.0	820.0
40	74	.000	3.710	.0	750.0
41	61	.000	3.741	.0	830.0
42	60	.000	3.774	.0	700.0
43	132	.000	3.977	.0	900.0
44	133	.000	4.054	.0	900.0
45	82	.000	4.174	.0	690.0
46	134	.000	4.229	.0	1071.0
47	81	.000	4.300	.0	770.0
48	80	.000	4.416	.0	840.0
49	83	.000	4.468	.0	700.0
50	84	.000	4.476	.0	860.0
51	240,4.50	.000	4.479	.0	875.0
52	85	.000	4.482	.0	875.0
53	86	.000	4.491	.0	870.0
54	87	.000	4.509	.0	860.0
55	88	.000	4.510	.0	760.0
56	79	.000	4.519	.0	865.0
57	78	.000	4.611	.0	870.0
58	77	.000	4.678	.0	890.0
59	76	.000	4.732	.0	820.0
60	95	.000	5.283	.0	790.0
61	94	.000	5.405	.0	860.0

62	93	.000	[illegible].508	.0	850.0
63	92	.000	5.605	.0	990.0
64	91	.000	5.678	.0	1000.0
65	129	.000	5.688	.0	700.0
66	90	.000	5.731	.0	760.0
67	103	.000	7.143	.0	700.0
68	102	.000	7.269	.0	800.0
69	101	.000	7.393	.0	950.0
70	100	.000	7.500	.0	1120.0
71	99	.000	7.597	.0	1190.0
72	98	.000	7.672	.0	1130.0
73	97	.000	7.730	.0	800.0
74	110	.000	9.135	.0	750.0
75	109	.000	9.260	.0	930.0
76	108	.000	9.386	.0	1020.0
77	107	.000	9.493	.0	1230.0
78	106	.000	9.596	.0	1330.0
79	105	.000	9.668	.0	1250.0
80	104	.000	9.731	.0	940.0
81	117	.000	11.129	.0	810.0
82	116	.000	11.255	.9	980.0
83	115	.000	11.382	.0	1150.0
84	114	.000	11.490	.0	1340.0
85	113	.000	11.592	.0	1470.0
86	112	.000	11.673	.0	1340.0
87	111	.000	11.732	.0	960.0

VALLEY METEOROLOGICAL INPUT DATA

PRESET BY MODEL:
MIXING HEIGHT (M) = 9999
STABILITY = 6
WIND SPEED (M/SEC) = 2.5

INPUT BY USER:
TEMPERATURE (K) = 293.0
WIND DIRECTIONS (DEG) = 180.0

VALLEY: FIVE HIGHEST 24-HOUR SO2 CONCENTRATIONS (WIND DIRECTION)
(MICROGRAMS/M**3)

RECEPTOR		1	2	3	4	5
1(.00, .22)		1.55 (180.0)	*000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
2(.00, .29)		.47 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
3(.00, 1.79)		.78 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
4(.00, 1.79)		.78 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
5(.00, 2.11)		1.21 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
6(.00, 2.11)		.81 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
7(.00, 2.24)		.98 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
8(.00, 2.34)		1.17 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
9(.00, 2.36)		.89 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
10(.00, 2.46)		.80 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
11(.00, 2.53)		.91 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
12(.00, 2.56)		.80 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
13(.00, 2.56)		.80 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
14(.00, 2.63)		.95 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
15(.00, 2.69)		1.96 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
16(.00, 2.69)		1.12 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
17(.00, 2.74)		1.49 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
18(.00, 2.76)		.79 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
19(.00, 2.76)		1.69 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
20(.00, 2.77)		1.69 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
21(.00, 2.77)		1.58 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
22(.00, 2.78)		1.48 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
23(.00, 2.79)		1.90 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
24(.00, 2.80)		1.78 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
25(.00, 2.81)		1.27 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
26(.00, 2.82)		.66 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
27(.00, 2.89)		1.44 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
28(.00, 3.20)		1.03 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
29(.00, 3.31)		1.63 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
30(.00, 3.43)		1.90 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
31(.00, 3.53)		1.84 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
32(.00, 3.62)		2.00 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
33(.00, 3.67)		2.04 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
34(.00, 3.67)	*	2.51 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
35(.00, 3.67)		2.50 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
36(.00, 3.68)		2.21 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
37(.00, 3.69)		2.36 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
38(.00, 3.69)		2.15 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
39(.00, 3.71)		2.25 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
40(.00, 3.71)		1.33 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
41(.00, 3.74)		2.32 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
42(.00, 3.77)		.71 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
43(.00, 3.98)		2.21 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
44(.00, 4.05)		2.16 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
45(.00, 4.17)		.59 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
46(.00, 4.23)		1.77 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
47(.00, 4.30)		1.38 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
48(.00, 4.42)		1.93 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
49(.00, 4.47)		.65 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
50(.00, 4.48)		1.92 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
51(.00, 4.48)		1.92 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
52(.00, 4.48)		1.92 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
53(.00, 4.49)		1.91 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
54(.00, 4.51)		1.90 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
55(.00, 4.51)		1.21 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
56(.00, 4.52)		1.90 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
57(.00, 4.61)		1.85 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
58(.00, 4.68)		1.80 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
59(.00, 4.73)		1.65 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
60(.00, 5.28)		1.25 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
61(.00, 5.41)		1.49 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
62(.00, 5.51)		1.45 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
63(.00, 5.60)		1.30 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
64(.00, 5.68)		1.27 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
65(.00, 5.69)		.56 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
66(.00, 5.73)		.94 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
67(.00, 7.14)		.48 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
68(.00, 7.27)		.88 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
69(.00, 7.39)		.92 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
70(.00, 7.50)		.78 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
71(.00, 7.60)		.72 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
72(.00, 7.67)		.75 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
73(.00, 7.73)		.81 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)
74(.00, 9.14)		.53 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)

75(	.00,	9.26)	.69 ( )	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
76(	.00,	9.39)	.63 ( )	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
77(	.00,	9.49)	.51 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
78(	.00,	9.60)	.45 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
79(	.00,	9.67)	.49 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
80(	.00,	9.73)	.64 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
81(	.00,	11.13)	.53 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
82(	.00,	11.26)	.51 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
83(	.00,	11.38)	.43 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
84(	.00,	11.49)	.35 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
85(	.00,	11.59)	.29 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
86(	.00,	11.67)	.34 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	
87(	.00,	11.73)	.49 (180.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	000000.00 (.0)	

RUN ENDED ON 12-22-91 AT 18:15:40